

## Executive Summary

The Panel on Performance Measures and Data for Public Health Performance Partnership Grants was established at the request of the U.S. Department of Health and Human Services (DHHS). Its charge is to examine the state of the art in performance measurement for public health and to recommend measures that could be used to monitor the Performance Partnership Grant agreements to be negotiated between each state and the federal government. The panel was asked to consider performance measures in ten areas, which are clearly a subset of the full range of traditional public health concerns: chronic diseases; sexually transmitted diseases (STDs), human immunodeficiency virus (HIV) infection, and tuberculosis; mental health; immunization; substance abuse; and three areas of prevention of special interest to DHHS—sexual assault, disabilities, and emergency medical services. This report focuses on measures that states and the federal government can use over the next 3 to 5 years to negotiate agreements and monitor performance in these areas. A later report will examine additional measures that might be developed from new research findings on program effectiveness or as improvements are made to state and federal surveys and data systems.

More than 3,200 measures were proposed to the panel through various outreach efforts. The panel used four guidelines for assessing them: (1) the measure should be specific and result oriented; (2) the measure should be meaningful and understandable; (3) data should be adequate to support the measure; (4) the measure should be valid, reliable, and responsive. The measures that scored the highest are those we recommend for use in performance monitoring. They cover health status, social functioning, consumer satisfaction, and risk status.

In assessing the adequacy of data for specific performance measures, the panel concluded that there are few available data sources that are ideal for performance monitoring. Understanding the limits of available data is important if appropriate inferences are to be drawn. Many federal efforts to collect health-related data, for example, provide national rates, but do not collect data that provide state-level rates. Even when data are available at the state level, if comparisons are to be made among states, attention must be paid to the effect of different data collection methods on the comparability of results. Other issues that need to be considered include whether or not specific populations of interest are included in samples from which data are drawn and whether data are collected sufficiently often, or are made available soon enough, to be useful in the monitoring process.

It is important to note that many of the performance measures presented in this report can, and should, be subdivided to focus on specific high-risk populations in a state. These populations may be defined demographically, such as minorities, children, or elderly persons; by conditions, such as not having health insurance or being homeless; or by geographic area, such as central cities, high-risk neighborhoods, or rural communities. Specific subpopulations of interest vary across states. Rather than create multiple submeasures for each proposed measure, the panel chose, in most cases, to identify broad population measures that can be tailored by each state to focus on its specific population group priorities.

Despite their widespread use and intuitive appeal, health outcome measures are insufficient by themselves for monitoring the efforts of a given program in reducing complex public health problems. Many measures that are recognized as valid for tracking health outcomes are affected by many factors (inputs or processes), so changes in outcomes cannot be attributed only to specific program effectiveness. Attribution of responsibility for outcomes becomes even more difficult when the services in question are supported by multiple funding sources or multiple provider organizations. The panel concludes that performance monitoring must make use of process and capacity measures to complement available measures of outcomes. The panel recommends that each process and capacity measure be accompanied by reference to published clinical guidelines or other professional standards that describe the relationship between the process measure or capacity measure and the desired health outcome.

Given the current and potential uses of performance measurement in public health, substance abuse, and mental health, the panel recommends that a combination of measures of health outcome, process, and capacity be used in the agreements between the federal government and states. Because in some cases actual health status outcomes are impractical to measure or because there are many factors that affect the ultimate health outcome, the panel recommends using “intermediate” outcome measures, such as risk status, for which there is general consensus that the result being measured is related to the health status outcome. The panel uses the following definitions in this report:

**Health Outcome:** Change (or lack of change) in the health of a defined population related to an intervention, characterized in the following ways:

- health status outcome: change (or lack of) in physical or mental status
- social functioning: change (or lack of) in the ability of an individual to function in society
- consumer satisfaction: response of an individual to services received from health provider or program

**Risk Status (intermediate outcome):** Change (or lack of) in the risk demonstrated or assumed to be associated with health status.

**Process:** What is done to, for, with, or by defined individuals or groups as part of the delivery of services, such as performing a test or procedure or offering an educational service.

**Capacity:** The ability to provide specific services, such as clinical screening and disease surveillance, made possible by the maintenance of the basic infrastructure of the public health system, as well as by specific program resources.

Because of data limitations and differing health and defined population priorities among states, the panel’s list of health outcome measures should be considered an important subset, but not an exhaustive listing, of those that will be of interest to state agencies around the country. Few states have adequate data to support every health outcome measure, and virtually all states have major priorities in addition to the ones indicated by these particular measures. Similarly, for process and capacity measures, there are many reasonable strategies that states can pursue to improve health outcomes, and each strategy requires a different set of process and capacity measures. Therefore, the panel offers representative examples of relevant process and capacity measures in each program area.

The potential health outcomes and risk status measures to be used for monitoring purposes are presented in Chapter 3 and described in detail in Appendix C. For each health topic covered, the report includes examples of process and capacity measures that complement the outcome and risk status measures suggested by the panel. Potential measures for chronic disease focus on improvement of health risk status for tobacco use, nutrition, exercise, and clinical screenings. For STDs, HIV infection, and tuberculosis, the potential outcome measures target reporting of incidence and prevalence rates for specific diseases; client satisfaction with treatment, and reduction of high-risk behavior among specific subpopulations at high risk of contracting or spreading the diseases. The immunization measures

include a set for monitoring the incidence of vaccine-preventable disease and a set to be used to track vaccination rates for specific diseases. Most of the potential mental health measures focus on health outcomes for the treated population. Lack of data for measures of mental health outcomes in more general populations severely limits the number of potential measures the panel proposes. In substance abuse, the potential measures cover both treated and general populations for health status outcome, social functioning outcome, and risk status. For the three areas of prevention—sexual assault, disabilities, and emergency medical services—the narrowness of this charge to the panel and the general dearth of supporting data have resulted in a short list of potential measures.

Of course, use of even a large number of health outcome, process, and capacity measures may still result in less than conclusive evidence of agency or program performance in reducing multifaceted health problems. Therefore, the panel recommends that public health performance measures be considered as a central but not the only element of a continuous program of technical assistance. For example, if one measure or a combination of measures suggests that a given state is having unusual difficulty in making progress in meeting its performance objectives, such information should trigger an alert that some additional resources or technical assistance may be needed. The panel believes that this approach is consistent with the National Performance Review initiative at the federal level and with the total quality management activities that are being undertaken by state and local agencies around the country.

A major goal of this report is to provide an analytic framework for states and DHHS to use when assessing the appropriateness of specific outcome, process, and capacity measures for individual performance agreements. Recognizing that data resources and measurement methods need improvement, the panel recommends that DHHS continue to work with states toward several infrastructure goals: developing common definitions and measurement methods; encouraging efficient development of data resources that support multiple public health, mental health, and substance abuse needs; incorporating state data priorities in national infrastructure development efforts; and promoting states' data collection and analytic capabilities.

During the next stage of the study, the panel will examine the adequacy of existing databases to support improved health outcome measures, assess the quality of the empirical evidence of the effectiveness of specific interventions and the health outcomes discussed in this report, and suggest modifications to existing data sources or new databases necessary to support refined or new performance measures. Based on that assessment, the panel will recommend priority areas of research and data collection and infrastructure development for each of the health areas covered in this report, as well as for more general areas of public health concern.